

PATENT  
2001-1427

IN THE U. S. PATENT AND TRADEMARK OFFICE

In re application of

Abdoel Fazel RAJABALI et al.                      Conf. 8381

Application No. 10/562,832                      Group 1794

Filed February 23, 2006                      Examiner W. Watkins, III

LAMINATE WITH LOCAL REINFORCEMENT

DECLARATION

Assistant Commissioner for Patents  
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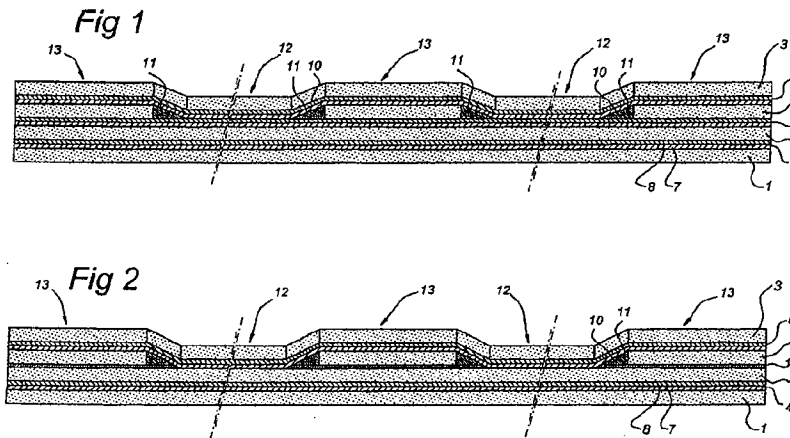
Sir:

1. I, Abdoel Fazel RAJABALI, a named inventor, am a citizen of the Netherlands and reside at Fideliohof 70, Alphen A/D Rijn, NL-2402, the Netherlands.

2. I am familiar with the above-identified U.S. patent application, its prosecution before the United States Patent and Trademark Office, and the applied references of WESTRE et al. (U.S. Patent 6,114,050) in view of BEHR et al. (U.S. Patent 6,428,905).

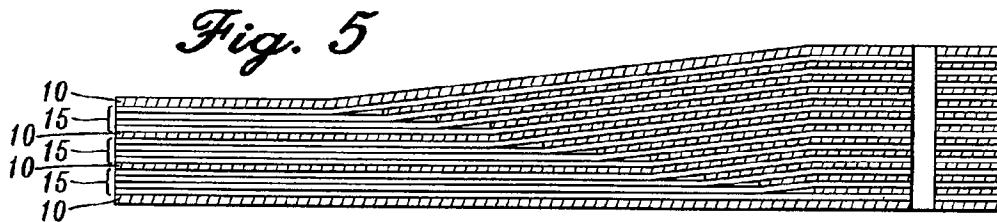
3. In order to demonstrate the patentability of the present invention, I am submitting the following observations.

The present invention pertains to a laminate that is illustrated, by way of example, in Figures 1 and 2 of the application, which are reproduced below.



Figures 1 and 2 show metal layers (1-3, 9) and plastic bonding layers (4-6) situated between the metal layers (1-3, 9). Two external metal layers (1, 3) extending substantially continuously, and there is at least one internal metal layer (2, 9). At least one of the internal metal layers (9) has at least one opening (10) and, as is set forth in claim 1, "in that at a position of the opening (10) the other metal layers (1-3) and the plastic bonding layers (4-6) are bonded together to form a packet of lower thickness, **and at least one of the openings (10) is peripherally closed.**"

In contrast, WESTRE et al. pertain to a hybrid laminate and skin panels of hybrid laminate. Figure 5 of WESTRE et al. is reproduced below.



WESTRE et al. do not disclose an opening in an internal metal layer, in which opening the neighboring plastic bonding layers are continued and are bonded to each other, as is the case in the present invention.

An implicit meaning of the wording "opening" is that it is closed at the periphery in all circumferential directions. This was positively phrased in dependent claim 19, which has now been incorporated into base claim 18.

It should be further noted that the main objective of the present invention is to make the laminate lighter. With the aim of applying local reinforcements, such as at the edges, additional metal layers may be positioned in between (as according to WESTRE et al., Figure 5). In the present invention this is carried out in an advantageous way by the use of an intermediate

metal layer having local, peripherally closed openings within which the neighboring bonding layers are bonded to each other.

As a result, the intermediate metal layer forms a coherent structure which can be applied as a single metal sheet with openings. This is done at one go during the layup of the laminate, at the correct position between the other layers. This makes the application of such an intermediate layer much easier, at least in comparison to the application of loose reinforcement parts. The process of laying a puzzle in the mold is thereby prevented, and replaced by the application of a single coherent intermediate metal layer having openings.

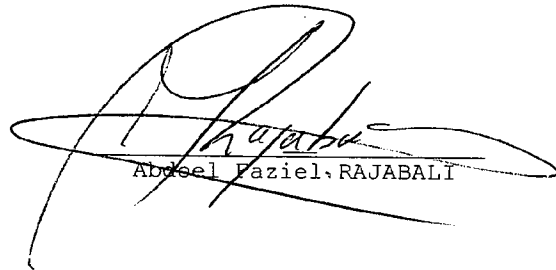
Therefore, the present invention has unexpected advantages that are neither disclosed nor inferred by the applied art of WESTRE et al. and BEHR et al.

4. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States code and that such willful false statements may

Appln. No. 10/562,832  
Docket No. 2001-1427

jeopardize the validity of the application or any patent issuing thereon.

Date 16-02-2010



Abdeel Fazel RAJABALI